

REMARKS

This application has been carefully reviewed in light of the Office Action dated March 17, 2008. Claims 1-2, 4-8, 10-12, and 15 remain in this application. Claim 1 is the independent Claim. Claims 1, 10, and 15 have been amended. Support for the amendments is found, *inter alia*, in Sample Nos. 2 to 6 of FIGURE 5 and Sample Nos. 30 to 34 of FIGURE 17 of the present Specification. Claims 3, 9, and 13-14 have canceled without prejudice. It is believed that no new matter is involved in the amendments or arguments presented herein.

Reconsideration and entrance of the amendment in the application are respectfully requested.

Art-Based Rejections

Claims 1-15 were rejected under 35 U.S.C. § 102(b) as anticipated by or, in the alternative, under 35 U.S.C. § 103(a) over EPO 0 753,867 B1 ("Uchida")

Applicant respectfully traverses the rejections and submits that the claims herein are patentable in light of the clarifying amendments above and the arguments below.

The Uchida Reference

Uchida is directed to an R-Fe-B based permanent magnet. (See, *Ichida*, [0001]).

The Claims are Patentable Over the Cited References

The present application is generally directed to an R-T-B system permanent magnet.

As defined by amended independent Claim 1, An R-T-B system permanent magnet is characterized by including a magnet body including a sintered body including

at least a main phase comprising $R_2T_{14}B$ grains (wherein R represents one or more rare earth elements, and T represents one or more transition metal elements including Fe or Fe and Co essentially). A grain boundary phase containing R in a larger amount than the main phase is provided. The magnet body has a 10 – 200 μm thick hydrogen-rich layer having a hydrogen concentration of 300 ppm or more formed in the surface layer portion. An overcoat covers the surface of the magnet body.

The applied references fail to disclose or suggest the above features of the claims of the present invention. In particular, the applied references fails to disclose or suggest "the magnet body having a 10 – 200 μm thick hydrogen-rich layer having a hydrogen concentration of 300 ppm or more formed in the surface layer portion," as required by amended independent Claim 1 of the present invention.

By way of explanation, amended claim 1 of the present invention is characterized in that an R-T-B system permanent magnet comprises a magnet body having a 10 to 200 μm thick hydrogen-rich layer formed in the surface layer portion. When the thickness of hydrogen-rich layer falls within this range, the corrosion resistance is improved. This is based on Sample Nos. 2 to 6 of FIGURE 5 and Sample Nos. 30 to 34 of FIGURE 17 which show relationship between thickness of hydrogen-rich layer and improved corrosion resistance (0/100-2/100 for those samples). In contrast, Sample No. 1 of FIGURE 5 and Sample No. 29 of FIGURE 17 do not have any hydrogen-rich layer even though they are all provided with an Ni-plating. The corrosion resistance of Sample Nos. 1 and 29 is 5/100. The hydrogen-rich layer thickness of Sample Nos. 8 and 36 with corrosion resistance of 5/100 is 300 μm and 330 μm respectively, which is outside the range of the amended Claim 1.

On page 5, the Office Action contends "Applicants have not established that they hydrogen layer recited in the instant claims, in fact, distinguishes over the hydrogen layer that would be expected in Uchida's '867 sintered R-T-B magnet." Applicant

respectfully traverses this contention. During Ni-plating the sintered R-T-B magnet absorbs hydrogen, however, Ni-plating does not necessarily form a hydrogen layer in the surface of the magnet (*See, Specification, Sample Nos. 1 and 9*). Therefore, in order to achieve improved corrosion resistance, the thickness of the hydrogen-rich layer has to be adjusted to fall within the range, as provided in amended independent Claim 1, by controlling the current density and other conditions when the overcoat is formed by Ni-plating.

The cited reference Uchida '867 fails to disclose a hydrogen layer having a thickness of 10 to 200 μm and a hydrogen concentration of 300 ppm or more formed on the surface of a sintered R-T-B magnet. In fact, the applied Uchida reference fails to disclose, teach or even suggest that the corrosion resistance of an Ni-plated sintered R-T-B magnet is improved by regulating the thickness of a hydrogen-rich layer to fall within a predetermined range by controlling the current density and other conditions when the overcoat is formed by Ni-plating

Accordingly, Uchida fails to disclose, teach or even suggest the above features of amended independent Claim 1 of the present invention.

Since the cited reference fails to disclose, teach or suggest the above features recited in amended independent Claim 1, that reference cannot be said to anticipate nor render obvious the invention which is the subject matter of that claim.

Accordingly, amended independent Claim 1 is believed to be in condition for allowance and such allowance is respectfully requested.

The remaining claims depend either directly or indirectly from amended independent Claim 1 and recite additional features of the invention which are neither disclosed nor fairly suggested by the applied references and are therefore also believed to be in condition for allowance and such allowance is respectfully requested.

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Conclusion


In view of the foregoing, it is respectfully submitted that the application is in condition for allowance. Reexamination and reconsideration of the application, as amended, are requested.

If for any reason the Examiner finds the application other than in condition for allowance, the Examiner is requested to call the undersigned attorney at the Los Angeles, California telephone number (213) 337-6809 to discuss the steps necessary for placing the application in condition for allowance.

If there are any fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-1314.

Respectfully submitted,
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